



Contingent Convertible Bonds and Capital Structure Decisions

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Comments by Larry D. Wall



Disclaimer

The opinions expressed in this discussion are mine alone and do not necessarily reflect the view of the Federal Reserve Bank of Atlanta or the Federal Reserve System.

Public policy issues

1. Resolve insolvent firms *versus* **Reducing probability of insolvency**
2. Reduce risk of losses *versus* **Expand buffer to absorb losses**
3. Increase common equity requirements *versus* **Allow/require debt that converts to equity**
4. Convert debt to equity only after it is a “gone” concern *versus* **Convert when it is still a going concern**
5. Trigger conversion using supervisory judgment, *versus* accounting ratios *versus* **Market data**
6. Market trigger based on debt values *versus* **Based on equity values**

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Unanswered questions

1. **Allow/require debt that converts to equity** raises important issues about impact on issuers
 - Is CCB less costly to firm than issuing equity?
 - How does CCB's cost compare with ordinary debt?
 - How does CCB change risk taking incentives?
2. Triggers **Based on equity values** raise questions
 - Impact of CCB on equilibrium equity prices
 - Impact on the incentive to manipulate the stock price?

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This paper

- Albul, Jaffee, and Tchisty go a long ways towards answering these questions
- The paper uses a standard capital structure model from Leland (1994)
 - Firm invests in asset (portfolio) of fixed size
 - The asset return follows a continuous random process
 - Financed by common equity, perpetual debt and possibly by contingent capital bonds (CCB)
 - Value of claims determined by cash flows with no mispricing (except in manipulation section)
 - Capital structure determined endogenously by tax shield of debt and costs of bankruptcy

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Are CCBs less costly to firms than issuing equity?

- CCB is less costly than equity
 - But this merely reflects assumption of tax shield of debt
- The model cannot address question of whether market for these securities exists.
- Model also cannot address the extent to which banks already have an excess of tax shields

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How does CCB's cost compare with ordinary debt?

- Initial impact is to lower cost of debt by reducing bankruptcy costs
- Beyond some point CCB becomes more costly than debt
- Conjecture that the amount converted could be structured so that CCB is always less costly . If so:
 1. Caution against supervisors requiring all of the debt convert at once
 2. Raises question of whether the model is too "friendly" to CCB

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How does CCB change risk taking incentives?

- CCB that substitutes for straight debt generally decreases risk taking incentives
- CCB that substitutes for equity may increase or decrease risk taking incentives
 - If conversion is profitable to existing shareholders then it increases risk taking incentives
 - Reverse if conversion is costly to existing shareholders

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What is the impact of CCB on equilibrium equity prices

- The existence of CCB creates the potential for two equilibrium equity prices
 - Price based solely on the value of the firm's assets
 - A price that includes both the value of the assets and any gain or loss to existing equityholders from CCB conversion

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What is the impact of CCB on the incentive to manipulate the stock price?

- CCB creates an incentive to manipulate the stock price
 - Debt holders would be incented to manipulate the price if they would gain by conversion at the manipulated price
 - Equity holders would be incented to manipulate the price if they would gain at conversion at the manipulated price

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Conclusion

- The public policy case for CCB is straightforward but its implications for financial firms has been less clear
- This paper fills many of the holes in our knowledge about CCB and is an important contribution
- But there is more than can be done with this model (in the next paper?)
 - Analyze converting CCB in blocks
 - Simulate to obtain zone of no manipulation incentive
 - Analyze case where the issuer would set the CCB trigger and conversion price

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Further discussion

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